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ABSTRACT

The induction process for vocational education teachers was examined in a research study. A literature review indicated a growing research base illuminating the induction problems, successes, and needs of beginning teachers and other research proposing a general theory of human development. Major research activities included nominal group technique sessions and interviews; daily/weekly logs and case studies; time series data collection; national survey of beginning vocational teachers; examination of exemplary programs; and model induction assistance program. Analysis of findings indicated substantive differences in the induction experiences and needs of teachers entering vocational education from teacher education certification and alternative or vocational routes and the need for a structured induction assistance program. A model for an induction assistance program was proposed. Its 10 major components were as follows: (1) Professional Development Center; (2) Local Professional Development Coordinator; (3) detailed orientation; (4) structured mentoring program; (5) beginning teachers handbook; (6) beginning teacher peer support group; (7) systematic administrator support; (8) flexible series of ongoing inservice workshops; (9) certification coursework for alternative certification teachers; and (10) coaching in reflective teaching. Four groups involved in this collaborative effort were the local school system; state department of education; teacher education program; and professional teacher organizations. (29 references) (YLB)

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ON BECOMING A TEACHER: "THEY JUST GAVE ME A KEY AND SAID, 'GOOD LUCK'"

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ON BECOMING A TEACHER: "THEY JUST GAVE ME A KEY AND SAID, 'GOOD LUCK.'"

According to Shulman (1987) teaching may well be the most difficult of all professions to master. In the professional life of a teacher, no period is more critical to success, even to professional survival, than the induction phase. For many beginning teachers, the first year is a time of high expectations, great disappointments, important successes, and rapid learning (Huling-Austin, Odell, Ishler, Kay, & Edelfelt, 1989; Ryan, 1986). The lament implied by the title of this paper was one that was actually made by several of the teachers in our study, although not in exactly those words. It has been the common plea of more beginning teachers in this country that any of us would like to admit.

Overview of the Literature

The professional development of a teacher progresses through a series of phases that can be labeled preservice, induction, and continuing development (Camp & Heath, 1988). The induction phase consists of that period from the initial employment of the new teacher until he or she achieves an acceptable level of competence and comfort in the role of a professional teacher (Camp & Heath, 1988). It is typically characterized by a range of experiences that can produce a rapidly changing attitude toward self, students, fellow teachers, and the role of teaching (Ryan, 1986).

Research on Induction

There is a growing research base to illuminate the induction problems, successes, and needs of beginning teachers in general. Probably the most notable of the recent contributions are those by Huling-Austin (1989) and Reinhartz (1989). But little is available in the literature dealing with the induction process for beginning vocational teachers (Waters, 1988). Camp and Heath (1989) found that as many as one-fourth of the problems experienced by beginning vocational teachers are unique to vocational education. Their finding adds to Gage's contention (1977) that for research in education to be optimally effective, it must be discipline-specific.

Scott (1988) said that "One of the most critical issues facing vocational teacher educators . . . is how to provide an induction program that will reduce the many problems confronting first-year vocational teachers, many of whom have little or no previous formal teacher training or college education."(p 99) He notes that all beginning vocational teachers have problems, but agrees with Bouchie (1987) that vocational teachers who enter the profession directly from business and industry with little or no pedagogical training have different problems. The same may also true for the growing number of teachers entering vocational education through so-called "alternative" certification routes, with degrees in related technical disciplines, again without teacher education backgrounds.

Waters (1988) cited several major research programs in this area, particularly those conducted by the Educational Testing Service and the Research and Development Center for Teacher Education at the University of Texas at Austin. Unfortunately, none of that research dealt with vocational teachers. Growing out of those and other studies, a large number of induction assistance programs have been implemented (Huling-Austin, 1989). By far the most prominent form of induction assistance suggested is some form of mentoring. If induction programs for beginning teachers are to be planned and structured with consideration of the realities of the process, then they should be based on appropriate research, but that research has been lacking in vocational education. Thus, there was a clear and pressing need to examine the induction assistance needs of beginning vocational teachers.

Fuller (1969) presented an early model of preservice and beginning teacher socialization that later proved valuable in conceptualizing the induction process. Her research gave rise to a three-stage model for teacher professional development that Waters (1988) described as consisting of self, task, and impact stages. In this model, the teacher progresses from a primary concern with day-to-day survival (self stage) to a period in which the primary concern is how to be an effective teacher (task stage). At long last, the

successful teacher eventually comes to be concerned primarily with the long-term effects of his or her instruction on the student (impact stage).

Ryan (1986) later added what he called a fantasy stage during which prospective and new teachers may hold unrealistically high expectations for themselves and their students. He then used the terms fantasy, survival, mastery, and impact to describe his four-stage model.

Theoretical Framework

Research reported by Buehler (1933), cited by Super, Crites, Hummel, Moser, Overstreet, and Warnath (1957) and later by Osipow (1973), proposed a general theory of human development. The Buehler model proposed that humans pass through four basic stages: growth, exploratory, maintenance, and decline.

Looking at one aspect of human development, Ginzberg, Ginsberg, Axelrad, and Herma (1951) proposed a general theory of occupational choice. Their model concentrated on the growth and early parts of the exploratory stages identified earlier by Buehler. In terms of the process of selection of a vocation, they proposed that individuals pass through a series of stages they labeled fantasy, tentative, and realistic. Their fantasy stage occurred in early childhood an involved child-like visualization of self as an adult. The tentative stage involved the gradual recognition by the child that he or she has certain interests and abilities and that those might be somehow related to the concept of occupation. Their realistic stage occurred in later adolescence and involved a conscious balancing of self against occupation as a means of arriving at an occupational choice.

Osipow (1973) pointed out that the Ginzberg, et al, theory of occupational choice was extremely influential in the field of vocational development. Yet, as he reported, their theory received wide-spread criticism, in particular from Donald Super, who was becoming a central figure in the field.

Super, et al (1957) proposed a more comprehensive theory of vocational development that expanded on the Buehler (1933) and Ginzberg, et al (1951) work. They posited a life-stage model with roughly corresponding age-spans as indicated in Figure 1. Super's work remains one of the definitive theories of occupational development and is described regularly in the current literature on personal adjustment and human development (Barocas, Reichman, & Schewebel, 1983; Belkin, & Nass, 1984).

The exploratory-trial stage occurs at the very beginning of mature adulthood an involves the initial transition from schooling into work for persons following the traditional college route immediately after high school. This stage typically involves a first job and is characterized by insecurity, false starts, and instability.

The establishment-trial stage follows the exploratory-trial stage and predicts adjustment problems that result in either eventual stabilization or a continuing pattern of job changes that last throughout the individual's working life. This stage is characterized by a growing stability and maturity in judgement and attitude toward work.

Figure 1. Stages of Vocational Development Proposed by Super, Crites, Hummel, Moser, Overstreet, and Warnath (1957).

STAGE	Age Range
Growth	Birth - 14
Fantasy	4 - 10
Interest	11 - 12
Capacity	13 - 14
Exploration	15 - 24
Tentative	15 - 17
Transition	18 - 21
Trial	22 - 24
Establishment	25 - 44
Trial	25 - 30
Stabilization	31 - 44
Maintenance	45 - 64
Decline	65 - Death

For the typical teacher-education graduate entering teaching directly from college, the induction process would begin at the exploratory-trial developmental stage. One would expect substantial instability, unrealistic expectations, and false starts at that stage of development. At some point, one would expect these teachers to progress into the establishment-trial stage and thus to gain both in vocational maturity and stability.

Teachers entering vocational education from an extensive occupational experience background typically enter the profession at the establishment-trial stage of vocational development. While adjustment problems would still be expected, one would expect somewhat less instability, more realistic expectations, and fewer false starts from such a group. Interestingly, because of the wide range in ages of beginning teachers, particularly those entering the classroom from alternative routes including occupational experience, these experiences may fall well outside the age range (25 - 30) posited by Super.

Overview of the Research

To investigate this process within the framework of vocational education, this project began in 1988 and has involved a wide range of both qualitative and quantitative research. The following paragraphs VERY BRIEFLY summarize the major research activities of the project. For details of the procedures used, a number of articles, papers, and a research monograph are available from the authors of this paper. No attempt will be made here to provide detailed descriptions of the procedures used.

Nominal Group Technique Sessions and Interviews

Initial data collection consisted of Nominal Group Technique (NGT) focus sessions and in-depth individual interviews with the NGT participants. The sessions involved 10 samples of beginning teachers ranging from just beginning their first year to entering their third year of teaching. A total of 54 NGT sessions and over 100 interviews were conducted over a two-year period, involving beginning vocational teachers from 8 states ranging from the Gulf coast to the Pacific Northwest.

Daily/Weekly Logs and Case Studies

Second, two sample of 12 teachers were intensively followed up by means of daily tape-recorded logs throughout their first year and by weekly tape-recorded logs throughout their second year. In addition, we conducted a year-long series of on-site visits with this group of teachers for ethnographic observation and for in-depth interviews with the beginning teachers, principals, mentor or buddy teachers, and selected students. Finally, we conducted a series of NGT sessions and individual interviews at the university with this set of teachers over the two-year period.

Time Series Data Collection

A third major effort was the weekly follow-up of two samples of beginning teachers throughout their first year with job satisfaction scales, stress scales, and a number of other personality and psychological instruments. We met with these groups of teachers at the

beginning and end of their first year for NGT sessions and individual interviews as described earlier.

National Survey of Beginning Vocational Teachers

The fourth major research effort was a national survey of beginning vocational teachers in the United States during school year 1989-90. An instrument was developed, validated, and field tested. A national probability sample of beginning vocational teachers was selected (N = 625). The overall response rate was 76%. Of the responses returned, 26% indicated they were not actually first year teachers, and a usable response rate of 56% was finally achieved. Early-late comparisons indicated the respondents were representative of the population.

Examination of Exemplary Programs

The fifth major activity was an examination of exemplary programs of induction assistance. We contacted all state directors of vocational education and asked for nominations of outstanding, innovative, or exemplary programs of induction assistance involving vocational teachers. Approximately 30 programs were nominated ranging from state-wide legislatively mandated to local initiatives with minimal funding. We contacted personnel from those programs nominated and requested more information. Of the materials collected, twelve programs were selected for further study. Directors of six programs in four states were interviewed by telephone. Field visits were made to study two programs in detail. The remaining programs were reviewed based on the materials they provided.

A Model Induction Assistance Program

The last major research effort is being implemented this fall. We are developing, validating, and field-testing a model induction assistance program for beginning vocational teachers in the Roanoke Valley region of Southwest Virginia.

Findings

Due to space and time limitations, the detailed findings of the research project are being omitted from this paper. For details of the findings on which the remainder of the paper is based, the reader is referred to the research monograph On becoming a teacher: An examination of the induction of beginning vocational teachers in American public schools (in press), which will be available through the National Center for Research in Vocational Education, University of California, Berkeley in fall, 1991. The following sections contain the major discussion and conclusions from that monograph.

Discussion

After a three year review of literature that examined materials from 1933 to 1991, massive data collection efforts undertaken as a part of this project, analyses documented in a number of articles, papers, and three research monographs, we believe that we can draw some well-founded discussion and conclusions. The following sections represent our analysis and interpretation of the research findings to this point in time.

Discussion Regarding the Analysis of Daily and Weekly Log Transcripts

From the outset, this part of the research has been a qualitative study. On the other hand, the almost quantitative treatment of the data, as suggested by Morgan (1988), allowed for some interesting comparisons within the limited set of participants.

Several findings emerged from the analysis of the daily logs of the first year for twelve beginning vocational teachers. When asked to list things that were negative and things that were positive, the beginning teachers' negatives far outweighed their positives. That agrees with the literature which concentrates almost exclusively on the problems of beginning teachers. Yet, when the anecdotes of events reported were analyzed, the positive events far outnumbered the negative events. It would seem that perhaps beginning teachers dwell on negatives even though in their daily lives they experience more positive occurrences.

The high proportion of negative influences, positive influences, and significant events that are vocational-specific was also worthy of note. In all three domains, approximately a quarter of the influences or events were vocational-specific. Clearly, that adds empirical evidence to Gage's (1977) plea for discipline-specific research. Beyond that, it provides strong evidence for the premise of this study that induction assistance programs serving beginning vocational teachers should be designed to accommodate their unique needs.

It was hardly surprising to find the daily lives of beginning vocational teachers so dominated by students in all respects--positive influences, negative influences, and significant events. But the extent to which the educational system itself contributed to negative influences and negative significant events was not expected and certainly cannot be considered encouraging. The educational system should be in the business of helping new teachers adjust to the job and succeed rather than interjecting impediments for the novice to overcome.

The low level of interaction between beginning teachers and their co-workers was also surprising. One would have hoped that experienced teachers would provide more effort at socializing the novice into the faculty-body. On the other hand, this supports the vision that Goodlad (1984) portrayed of the teacher as isolated in a self-contained environment.

This portion of the study implies that teachers lacking a teacher education background need early intervention in curriculum and pedagogy, as Scott (1988) contended. On the other hand, their needs in time management and an orientation to the eccentricities of educational systems as opposed to the procedures of the business world may be just as important. Teachers with teacher education backgrounds appear to need early intervention in time management, technical subject, and morale maintenance.

Discussion Regarding Case Studies of Two Marketing Teachers

Based on two case studies, there are several logical conclusions, and they are not exactly what we would have expected as teacher educators. In these case studies at least, one teacher had some early advantages gained by completing a teacher-education certification (TEC) program compared to entering teaching from an industry-based, non-teacher education certification (NTEC) route. She was more self-confident and more competent in terms of instructional planning and delivery at first. On the other hand, having entered teaching from an industry-based experience route the NTEC teacher was more self-confident and competent in terms of technical subject expertise. The former was more at ease with her teaching peers but the latter was more self-confident and assertive in pursuing his goals. One had spent more time **preparing** to be a teacher but the other had spent more time **becoming** a teacher.

Both routes offered advantages and it is hard to tell which advantages were more substantive. The NTEC teacher was older and more experienced than the TEC teacher. He had already gone through many of the vocational development experiences that were still ahead of the younger teacher. The differences in age and experience were very powerful advantages -- advantages such as being able to adjust more readily to the "working" environment.

As a result of these case studies, we are less convinced than before of the conventional wisdom that teacher-education graduates invariably are better teachers in marketing education than persons entering the classroom from industry. On one hand, the teacher-education graduate has the advantages of knowing the curriculum, how to develop and deliver lessons, familiarity of DECA, and all the other responsibilities of the role of a marketing teacher. On the other hand, the non-teacher education person has the advantage of maturity and experience. Quality in marketing education means having individuals who possess knowledge and expertise in the field of marketing as well as in the

art and science of pedagogy. The ideal situation would be to attain a balance between these two.

These cases show evidence that teacher educators should direct promotional efforts toward an audience, in addition to our traditional university student, that is more mature and experienced in marketing. In addition, we should make an effort to provide professional preparation courses early for the teachers who enter teaching from industry. It would also be ideal if we could require a longer business internship for the traditional teacher-education student.

Discussion Regarding Case Studies of Three Agriculture Teachers

The first year in the career of an agriculture teacher is an exciting time. The new teacher is in a familiar setting, since he or she has attended school for over twelve years, but the situation is different from being a student. The new teacher is now in charge of the classroom and may feel lost. For most of the school day, the beginner is alone without adult contacts. The first year can also be stressful because the new teacher feels pressure from many directions. The beginner is expected to perform like a veteran teacher, but is rarely given the assistance and support needed to accomplish that task.

Of course, not all first-year experiences are bad. Beginning teachers receive positive feedback from students and others, and this encourages them to keep on trying. Agriculture teachers also may receive recognition because of student organization activities. Finally the mere realization of actually being a teacher is exciting for many beginners.

Beginning agriculture teachers need early, appropriate assistance. We believe that they should be hired in either July or early August, then be allowed to use the extra time to prepare for classes. It would also be helpful for principals to hold a conference with them to try to determine their weaknesses. Once this has been accomplished, then appropriate interventions can be devised to help them overcome those weaknesses.

Discussion Regarding the Results of Nominal Group Sessions

One of the more interesting outcomes of the NGT sessions was the development of an extensive listing of problems identified by beginning vocational teachers from all across the United States. Summarizing the results for all groups, both NTEC and TEC, over the first two years in their careers, the problem areas fall into the following themes:

1. Student motivation, behavior, attitude, lack of preparation to handle discipline, student lack of basics, misplacement in course, and students' problems
2. Lack of orientation to school's policies and procedures and job responsibilities and communication.
3. Time management and over commitment.
4. Instructional problems, problems with lesson development and delivery strategies, knowledge of or availability of curriculum, teaching out of field, staying ahead on lessons, time for self-study and mixing different level students.
5. Lack of adequate facilities, materials, textbooks, equipment (to include maintenance), and VSO funds.

Another interesting aspect of the NGT research was the development of a series of prioritized listings of induction assistance needs as identified by the beginning vocational teachers. When the assistance needs were analyzed across all groups, the needs that were most identified can be categorized into the following:

1. Time and organization-More preparation time and assistance with organization, lower class load, no extra duties the first year, extra preparation period, time prior to school start-up, and others as ways to provide more preparation time.

2. Professional development-Workshops, courses, and various materials to assist them with instructional development and delivery.
3. Support-Support needed from a number of sources predominantly the administration, parents, the business community, and guidance.
4. Orientation-A through orientation and a new teachers' handbook with everything a new teacher needs to know.
5. Instruction-Observations of other teachers, workshops, curriculum and other materials, and information on teaching as mentioned in #2.
6. Facilities-Equipment, teaching materials, and supplies.
7. Mentor-A planned mentor program where a mentor provides feedback and helps them grow.
8. Interaction with other new teachers-Opportunities for new teachers to get together and a trouble shooting line they can call for assistance.
9. Positive feedback-Positive feedback from the administration and other teachers. Recognition for doing a good job.
10. Students-Most assistance items for students were mentioned in relation to workshops to handle discipline, student motivation, and students in general.
11. Evaluation and feedback-More frequent observations of what they are doing and immediate feedback. They want to understand the evaluation system.

Discussion Regarding the National Survey

Assistance Needed and Received. In spite of the growing recognition of the importance of induction assistance programs for beginning teachers, it appears that vocational teachers are generally not being served by such programs. Slightly more non-teacher education certified than teacher-education certified teachers are involved in beginning teacher assistance programs. Even with those, however, the proportion being assisted is dismally low.

More often than not, beginning vocational teachers who have an assigned mentor or buddy teacher are not involved in any other form of organized induction assistance. It would appear that many administrators who are responsible for beginning vocational teachers at least recognize the importance of providing some sort of help to them. Assigning a mentor is a low cost step that can be taken with little involvement on the part of the administrator and without the necessity of developing and funding a broader induction assistance program. On the other hand, simply assigning a mentor to the novice does not replace a structured induction assistance program. Moreover, it does not absolve school administrators of further responsibility to provide support and assistance to beginning teachers.

Even the most fundamental induction assistance needs are not being met by an alarming proportion of beginning vocational teachers. Provision of a curriculum guide for organizing a course that one has never taught seems so basic, that it is disappointing to find almost a quarter of beginning vocational teachers not receiving one. By the end of the first year of teaching, one should reasonably expect the school principal to have visited a beginning teacher's class and provided evaluation and feedback. Even that was lacking for almost one-fourth of the respondents.

Beginning vocational teachers regard inservice as very important--many different forms of inservice. But, very little of the specific types of inservice perceived as important (classroom management, student counseling techniques, stress and time management) is being provided. Even a workshop for new teachers had been provided to only about half of the respondents. Beginning vocational teachers need a mass of information, but if all of it is delivered at one time, "information overload" is likely to ensue. Therefore, it appears that inservice programs for beginning vocational teachers should be spread out over the year and conducted in "small doses." They should be sequenced in such a way that the most immediate needs are met first. Inservice on the curriculum is needed early as is inservice

on school policies and information on purchasing. At least the curriculum inservice should be completed before school starts. Classroom management inservice should be provided early during the year.

The results of this part of the study indicate that the perceived induction assistance needs of beginning vocational teachers with teacher-education (TEC) backgrounds are very much like the needs of those teachers entering the classroom and laboratory directly from industry (NTEC). This is quite contrary to the literature and indeed to the findings of the qualitative parts of the study discussed previously. Nevertheless, these data suggest more similarities than differences between TEC and NTEC teachers in that regard.

For teachers with and without teacher education backgrounds there were also little practical difference in the kinds of induction assistance received or in the perceived impact of the various forms of assistance. This indicates that in spite of the obvious differences in their training and experience, little distinction is being made in the schools between teachers entering the classroom from teacher education backgrounds and from industry backgrounds.

We did find that NTEC teachers were more frequently assigned mentors or buddy teachers and that they were more often enrolled in some form of beginning teacher program. Even then, far too few teachers were being served by such programs.

Programmatic and Curriculum Needs. Most vocational courses are not organized around the content of a textbook. On the other hand, it is likely that curriculum guides and instructional materials do exist for virtually any vocational program. Far too often, curriculum guides and adequate instructional materials were still unavailable to our respondents, even at the end of their first year of teaching. Perhaps the guides and materials were actually available but the beginning teachers simply were never informed of their existence or were not told how to secure them--in which case they might as well not have existed at all. If curriculum guides and instructional materials are not available within

the local school system, they are available somewhere. The beginning vocational teacher does not have the experience to know where to look or who to call.

School administrators and vocational education leaders should make certain that beginning vocational teachers are aware of the existence and provided with copies of curriculum guides as well as instructional materials for their courses. The beginning vocational teacher should not be asked to design the course, find the instructional materials, and provide the instruction without assistance.

Teacher release time is expensive and school budgets are always tight. But, if beginning teachers are to provide quality instruction and to survive as teachers, they need more planning time than experienced teachers do. That is particularly true of beginning vocational teachers because of the time necessary to purchase laboratory supplies, maintain equipment, and practice teacher-skills for demonstrations. First year vocational teachers should be given an extra planning period--if not for the entire year, at least for half of the year.

Discussion Regarding Exemplary Induction Assistance Programs

The induction assistance programs we found nationwide were quite diverse. This confirms the information presented in the Huling-Austin, et al (1989) book. Induction programs range from those designed specifically for enforcement of certification requirements to those designed to provide intellectual and moral support for struggling novices. Programs between those extremes are more common than programs on either end.

We found the concept of a regional consortium approach used in Yerington, Nevada to be very interesting. It makes possible the provision of services to small school systems (in numbers of teachers) by spreading limited resources across multiple local education agencies. The central role of the state department of education, at least in terms of

providing funding and regulatory impetus, is illustrated by the Orange County school system's Professional Orientation Program (POP).

The discipline-specific needs of teachers from the vocational service areas were probably best met by the New York Agriculture Teachers program. The Massachusetts Tool Kit provides an example of how important an organizational system can be to guide a beginning teacher's first steps into the profession. Again, the Orange County, Florida POP provides a very detailed set of study materials and audiovisual materials that the teacher can use. Many of the programs use mentoring, but the effectiveness of the mentoring programs varied greatly depending on the degree to which they were coordinated and supervised and to which the mentors were adequately trained.

Two Oklahoma projects were also quite innovative. We found their concept of mentors from outside the school system to be refreshing. Beyond that, the idea that participating school systems would be willing to absorb part of the costs for operating such a program was encouraging.

Connecticut's BEST program illustrates the combination of evaluation and assistance. In contrast to the Orange County program, BEST separates the assessment and assistance functions. In the Connecticut program the assessment team does not include the mentor. In the Orange County program the mentor participates in the assessment function. The separation of the two functions is more consistent with the literature on mentoring. On the other hand, such separation clearly presents questions about the efficacy of the advice provided by a mentor who is not privy to the discussions of the evaluation team. There appears to be no clean right or wrong answer to the question of integrating assistance and assessment.

Finally, we were both heartened and disheartened by this part of the study. There are some innovative and productive induction assistance programs in existence. But, there

are not enough. Even worse, current budget crunches such as the one in California (Tushnet, 1991), are threatening the survival of induction assistance programs nationwide.

Relating Our Findings to the Literature and Theoretical Base

Ryan (1986) described four phases of professional development for beginning teachers: fantasy, survival, task, and impact. Clearly, many of our teachers experienced the fantasy stage at the beginnings of their careers. Both groups of teachers, regardless of their ages and backgrounds seemed to experience versions of a fantasy phase, but the experiences tended to be quite different between the TEC and NTEC teachers.

The teachers entering the profession at an older age from industry and business backgrounds (NTEC) had been accustomed to working with adults in a mature setting. They expected to be treated as professionals by school systems that often do not concern themselves primarily with the feelings of its employees. The educational system rightfully centers on students and all too often, teachers must simply fend for themselves. They also expected students to understand the importance of vocational preparation and to be interested and self-motivated. The realization that both sets of assumptions were incorrect provided a rude awakening.

For the teachers coming out of teacher education programs (TEC) that included student teaching experiences, the illusions of the NTEC teachers were not a problem. They simply never expected adequate clerical support or modern facilities. They never expected adequate budgets or self-motivated students. For these people, the fantasy stage was crushed by the overwhelming complexity of the daily task of teaching without the support mechanism of a cooperating teacher to offer daily critiques, suggestions, and guidance in priority setting.

We found that the fantasy phase for both groups lasted only a few weeks. By mid-October, the realities of the survival phase had indeed set in for almost all of our teachers. For the NTEC teachers, their lack of understanding of instructional planning and teaching

skills forced them to seek out, even to devise on their own, new ways to pique student interest. They sought actively to survive the transition into teaching by mediating their shortfalls in the area of pedagogy. As mature, experienced workers, they adapted quickly and soon overcame these problems.

For the TEC teachers, their early advantages in terms of training in the rudiments of pedagogy soon evaporated with the press of a daily work schedule that did not allow for the luxury of extended planning time such as they had enjoyed during their teacher preparation. Their survival phase became dominated by late night lesson planning and fears of inadequacy in terms of technical knowledge. As younger, less experienced workers, they experienced difficulties with maintaining a positive outlook over the long first year.

Super, et al (1957) would have us believe that workers in their early twenties enter a stage of vocational development they called exploration-trial. That stage involves the taking of the first full-time permanent job at about the age of 22 to 24. It is characterized by instability, insecurity, and experimentation. That period is followed in the theory by the establishment-trial stage from about age 25-30 and by a stabilization stage from approximately age 31 to 44.

We found that indeed, the TEC teachers entering the profession at an earlier age, experienced the kinds of insecurities and instabilities that one would expect in the exploration-trial stage. Many such teachers leave the profession after year one, and again that would be predicted by the transition from exploration-trial to establishment-trial.

The NTEC teachers were fairly consistently older and more experienced as workers before entering teaching. They seemed to begin the teaching experience not at the exploration-trial stage but at the establishment-trial stage. Even lacking the preparation in pedagogy enjoyed by the TEC teachers, their greater maturity and experience seemed to provide a greater stability and a greater adaptability to a new and stressful environment.

The Proposed Model

A Collaborative Approach

To be successful, any induction assistance program must not only involve local school officials, it must be accepted and supported by them. After all, education in this country is fundamentally a local responsibility. Of just as much importance, the program must have the acceptance and support of the local teachers, upon whom such a program relies for much of the direct assistance activities.

The state department of education must also be involved. In every state there is a central body with overall responsibility for setting broad direction and coordination of the educational enterprise for the state. Certification is controlled at the state level. Increasingly, beginning-teacher assessment is being managed by state departments of education as the states' governors find education a politically important entity.

The university must be involved as well. It is from the university teacher education faculty that knowledge of the research base upon which the program is built must come. Education faculty members at the university level can take a broader perspective of the induction process. They can examine alternative solutions being tried in schools across the state and nation and help evaluate these solutions for possible implementation in other schools.

Finally, in a comprehensive induction assistance program for vocational teachers the relevant professional organizations should be involved. In the case of vocational teachers, that means the American Vocational Association (AVA), through its affiliated divisions and its state associations. In addition, the discipline-specific professional organizations should accept responsibility for assisting in the induction of new teachers into the profession. If these are to be professional organizations that work for the improvement of the profession, what better way than by improving the process by which new teachers are brought into the nation's vocational classrooms? As an example, in Virginia the Virginia

Vocational Agriculture Teachers' Association, under the leadership of the Virginia Vocational Association, should become involved in a collaborative induction assistance program for beginning agriculture teachers in the schools of the commonwealth.

Thus, there are four logical partners in a comprehensive induction assistance program (see Figure 2). Officials of the state department of education should provide direction, teacher education faculty members should provide a theoretical and research base as well as inservice an courses for credit, local school administrators and teachers should provide support and direct assistance on a day-to-day basis, and members of the profession through professional organizations should provide discipline-specific and program-specific assistance.

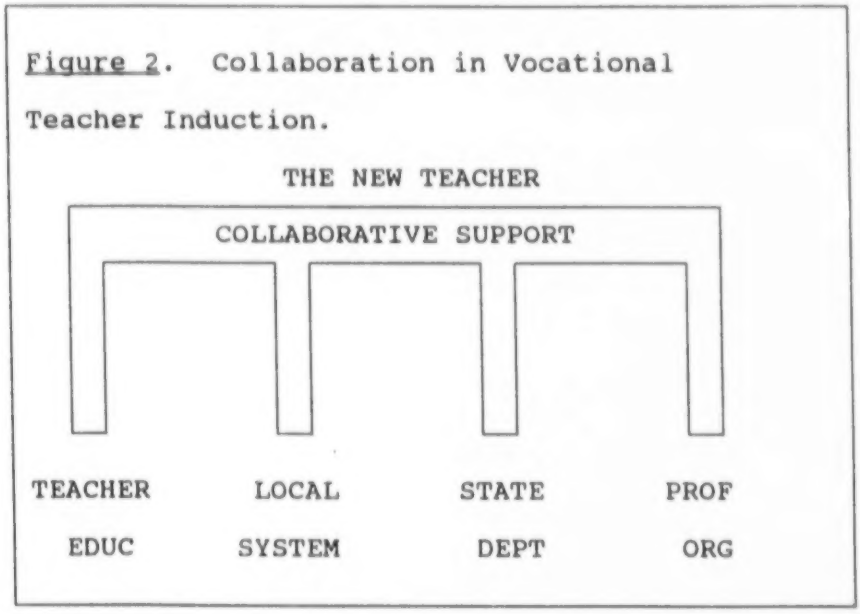

Figure 2. Collaboration in Vocational Teacher Induction.

The model induction assistance program consists of 10 major components, as listed in Figure 3. In the remainder of this paper, each of the ten major components will be described in detail.

Figure 3. Components of The Induction Assistance Model

- Professional Development Center
- Local Professional Development Coordinator
- Detailed Orientation
- Structured Mentoring Program
- Beginning Teachers handbook
- Beginning Teacher Peer Support Group
- Systematic Administrator Support
- Flexible Series of Ongoing Inservice Workshops
- Certification Coursework for Alternative Certification Teachers
- Coaching in Reflective Teaching

Professional Development Center

The Professional Development Center (PDC) is a service agency physically located within and administered by a Local Education Agency (LEA) or a consortium of LEAs. The PDC is located within a school rather than in the system administrative offices. The PDC consists of at least an office, secretarial support, telephone, duplicating capability or support, Professional Development Library, and a Local Professional Development Coordinator. See figure 4.

For a PDC that operates within a consortium, either a fixed share of the operating costs are determined in advance for each participating system or a fee is charged by the sponsoring system for services provided to participants from other cooperating systems. In either case, a portion of the operating costs and LPDC salary are paid by the cooperating teacher education agency. For the remainder of this paper, the term school system will be used also to refer to consortium members.

Figure 4. The Professional Development Center (PDC)

- LOCATED IN A LOCAL SCHOOL
- COLLABORATIVE RELATIONSHIP BETWEEN SCHOOL & UNIVERSITY
- FULL-TIME COORDINATOR
- JOINT FUNDING:
  - LOCAL SCHOOL OR CONSORTIUM
  - UNIVERSITY
  - STATE DEPARTMENT
- RESPONSIBLE FOR PROFESSIONAL DEVELOPMENT AT LEVELS OF:
  - INDUCTION
  - CONTINUING DEVELOPMENT

The collaborating university provides much of the expertise and may provide part of the funding to operate the PDC. In return, the university uses the services of the PDC in arranging credit courses to be taught in the local system. The most critical characteristics of the PDC are listed in Figure 4.

Local Professional Development Coordinator

The PDC is operated by a Local Professional Development Coordinator (LPDC) who is a regular faculty member of the local school system, rather than an administrator within the system or a university faculty member. It is important that the LPDC be a vocational teacher within the sponsoring school system. The LPDC is assigned full-time to the operation of the PDC. The LPDC is not assigned other routine administrative duties such as bus or lunchroom duty that would require him or her to at a given location on a regular basis, although non-routine extra duties may be expected.

The LPDC is an accomplished teacher who is interested in assuming exceptional leadership responsibilities for a short period of time. He or she is not necessarily moving permanently out of the classroom. The LPDC is trained by the cooperating teacher-

education agency in providing inservice activities and in organizing and operating induction assistance programs. For a summary of the responsibilities of the LPDC, see Figure 5.

Induction Assistance. The LPDC has primary responsibility for the organization and conduct of an induction assistance program for beginning vocational teachers. In this role, the coordinator is responsible for training experienced and successful teachers to serve as mentors. The coordinator then facilitates the matching and cooperation of mentors and novices. In addition, the coordinator organizes ongoing professional induction support and assistance seminars for the novice teachers. Finally, the LPDC seeks out and coordinates college, state department of education, and professional organization assistance and training opportunities for the beginning vocational teachers.

Continuing Development. Professional development is a continuing process that begins during preservice, encompasses the induction process, and extends throughout the career of the teacher. The coordinator is responsible for organizing and supervising the continuing professional development activities of vocational teachers in the school system.

University Affiliation. The LPDC is granted adjunct or associate faculty status in a cooperating teacher education college or university faculty. As a result of the university affiliation, the LPDC is in a position to organize college-credit courses and non-credit workshops offered through the college for teachers and others within the system.

In essence, the LPDC becomes a locally-based teacher educator. As such, the coordinator should receive an adjunct appointment to the teacher education faculty as a clinical assistant. In this role, the coordinator organizes both university-credit graduate courses and non-credit workshops for local teachers. Ordinarily, the coordinator does not teach such courses, but rather arranges for regular university faculty or other appropriate resource persons to teach courses or workshops in their areas of expertise, with scheduling based on the actual needs of the local teachers and schools. In cases where the LPDC meets the relevant criteria for teaching graduate courses, he or she can certainly do so. As

a university representative, the coordinator is in a unique position to facilitate collaboration between university faculty and local school faculty.

Regardless of his or her level of experience, the coordinator must receive specialized training in the induction assistance role. Skills in the clinical assistance of novice teachers, reflective self-critique, mentoring, and staff development are not inherited human capabilities. The coordinator should receive extensive training in those processes through the teacher education program at the college of education prior to assuming responsibility for serving in that capacity.

Figure 5. The Local Professional Development Coordinator. (LPDC)

- IS LOCATED IN PDC
- IS ASSIGNED FULL TIME
- JOINT FACULTY APPOINTMENT BETWEEN UNIVERSITY & SCHOOL SYSTEM
- TRAINS MENTORS
- ORGANIZES & SUPERVISES INDUCTION ASSISTANCE PROGRAM
    - MENTORS
    - BEGINNING TEACHER SUPPORT GROUP
    - UNIVERSITY FACULTY
    - STATE DEPARTMENT OF EDUCATION
    - PROFESSIONAL ORGANIZATIONS
- ORGANIZES & ASSISTS IN CONDUCT OF CONTINUING PROFESSIONAL DEVELOPMENT PROGRAM
    - CREDIT COURSES
    - NON-CREDIT WORKSHOPS
    - LOCAL INSERVICE

Detailed Orientation

Surprisingly, many beginning vocational teachers are not given adequate orientations to their respective school systems. Not so surprisingly, those who do receive

orientations are often given so much information that "sensory overload" results and much needed knowledge is lost. The LPDC ensures that new vocational teachers are given the information that our research indicates is important from the very outset. Moreover, the coordinator ensures that the initial orientation does not include information that can wait until later so as to avoid the sensory overload that often results from too much information at once.

Beginning Teachers Handbook

One of the things that repeatedly emerged from our data was the need for a concise handbook that beginning teachers could use for routine information and to guide the induction process. The handbook will include actual information needed by the teacher in order to operate within the system. It will also include checklists of people for the teacher to meet and contacts to make. Such a handbook has been developed based on the research of this project and is currently being used by a group of first-year marketing teachers in Virginia for refinement prior to its implementation in the induction assistance model field-test.

Structured Mentoring Program

A comprehensive induction assistance program should include many components. One component on which there is almost universal agreement is mentoring. There is a vast literature on mentors and mentoring. It is clear that to be optimally valuable to the novice, the mentor must be a supportive, nurturing, guiding person of greater experience. It is also clear that mentoring is not an inherited human ability. Mentors should be trained in their roles, and their training must be something more than a 3-hour inservice workshop. In this program, the mentors will be trained and supervised on an on-going basis by the LPDC.

Beginning Teacher Peer Support Group

One component that will be unusual about this model is the existence of a beginning teacher peer support group. The group will consist of only the beginning vocational

teachers in the system. It will be scheduled for periodic meetings during school work hours. Its purpose will be for sharing experiences and thoughts among the novices. Outsiders such as the LPDC will not normally attend the peer support meetings unless invited.

Systematic Administrator Support

Without active support of local school administrators, the induction assistance program cannot succeed. Workshops should be conducted periodically by the LPDC for principals and other school administrators with responsibility for beginning teachers. The purposes of the induction assistance program should be explained and the administrators' assistance and support should be sought. Administrators should also be trained in how to better work with beginning vocational teachers.

Cafeteria-Style Series of Ongoing Inservice Workshops

Our research identified an extensive list of inservice needs of beginning vocational teachers. The priorities for different groups of teachers should be set based on a needs assessment of the specific teachers using that list of needs as a starting point.

Beginning teachers with certification based on industry experience need immediate help in lesson planning and familiarization with the curriculum, although surprisingly such teachers often failed to realize that need in our interviews and focus groups. Teachers with teacher education backgrounds have more immediate needs in stress management and classroom discipline strategies.

There are several important points to be made about these inservice workshops. They should be made available on an as-needed basis. They should be short in duration and offered throughout the year. For instance, as opposed to a single three-day inservice in August, there should be six half-day workshops scattered throughout the year. As in the case of the orientation, our research indicates that sensory overload often occurs when too much information is given to the beginning teacher too early in the first year.

A list of group and individual workshops and the lesson plans and instructional materials for teaching them should be maintained in the PDC and made available as needed. In addition, a resource library of detailed professional development materials for teachers should be maintained as a part of the Professional Development Center. The beginning teachers being served are guided to specific assistance based on an individual needs assessment whenever possible.

Members of the respective teacher professional organizations have subject-specific and program expertise and experiences that beginning teachers of agriculture, business, health occupations, home economics, marketing, trade and industrial, or technology education lack and need. Under the leadership of the state vocational organization, members of the respective affiliate vocational teacher organizations should be asked to provide that expertise to beginning teachers. As an example, a geographic area meeting of beginning marketing teachers and representatives of the state association of marketing education teachers might be held under the coordination of the LPDC. Such meetings could be to solve immediate problems, provide suggestions to the beginning teachers, to plan development activities, or just to provide support and encouragement.

Certification Requirements

For alternative certification teachers, it is important that coursework required for certification be available at appropriate times. Coordination of this activity is one responsibility of the LPDC. In addition, in some states such as Virginia and Florida, state certification requirements include demonstrating competency at performing certain teaching behaviors. Coordination of coaching activities for meeting such requirements are the responsibility of the LPDC.

Reflective Self-Examination

Once the teachers in the qualitative portions of our study began to move past the survival phase (Ryan, 1986), it became clear that they were placing much more emphasis

on improving their teaching skills--on using new approaches to delivering instruction. Particularly for those who maintained daily and weekly logs throughout their first two years, there was a repeated emphasis of the value of thinking about what they had done and about how to improve their teaching. On numerous occasions, participants indicated that being a part of the study caused them to think about what they were doing and, in effect, to "reflect" on their teaching and their situations.

It was also clear at that early stage of their careers, they had little idea as to where to begin the process. Cruickshank's (1985) mechanistic reflective teaching strategy provides a apparatus that would be useful in a preservice setting to promote self-critique as a means of improving one's teaching skills. It is not so clear that his approach holds promise for the fledgling teacher who is alone in a new classroom.

The educational literature suggests (Schon, 1983; Grimmett, 1988; Schon, 1988) and our research supports the importance of reflective self-examination for the beginning teacher of vocational education. Indeed, the participants in our research indicated that the opportunity to think about what they were doing and how it affected them was of great benefit to them. Even though this was an unintended outcome of the research, it was an important one nonetheless.

Although it had not been anticipated at any early stage in this study, some mechanism appears to be needed to encourage novice teachers to begin the kinds of introspection that are characteristic of teachers that have entered Ryan's (1986) impact stage. Thus, the model will include a component that will provide assistance in that process.

Beginning teachers should be given guidance and encouragement in the processes of reflective self-examination of their teaching. They should have structured exercises that will assist them in finding the time and the opportunity to participate in reflective self-examination. The LPDC will provide initiative and guidance in this effort.

Summary and Conclusions

Summary

Teaching is one of the most difficult of all professions to master. Yet those who are responsible for the education, induction, and continued professional development of teachers (i.e., teacher educators and state and local education leaders) have generally done little to assist beginning teachers to negotiate successfully their transition into the profession. Traditionally very little has been done after graduation by teacher-education programs to provide positive support for novice teachers. That situation has been further confounded for beginning vocational teachers who enter the classroom directly from industry and without teacher education. With the expansion of alternative certification programs in the last several years, the number of novice teachers facing similar problems has increased.

Organized induction assistance programs can help to make the transition into full-time teaching less traumatic. They can also help in the retention of promising beginning teachers, many of whom leave teaching in frustration during their first year or so on the job. Not only can induction support and assistance programs be valuable to novice teachers themselves, but their students will benefit from better instruction and the experienced teachers who provide the assistance will gain in professional stature, self-confidence, and morale.

The model we propose would be useful in structuring induction assistance programs throughout a state or in single school systems or consortia of local schools. In selected school systems they would take the form of Professional Development Centers managed and operated by full-time "teacher educators in residence." These Local Professional Development Coordinators would be responsible for organizing and managing an induction assistance and continuing professional development program for local teachers.

Four distinct groups should be involved in a collaborative professional development system, with particular emphasis on induction assistance for beginning vocational teachers. The local school system would provide the facilities and part of the expense involved, along with much of the actual daily contact with the beginning teachers. The state department of education would provide leadership in initiating the program and in providing part of the travel (and perhaps other) expenses. The teacher education program at the cooperating university would provide the training for participants and the expertise in initiating the program. The professional teacher organizations would provide subject-specific expertise and program-specific experience.

Conclusions

In spite of the mixed message we received from our survey data and our qualitative data, our data lead us to a strong belief that there are important and substantive differences in both the induction experiences and needs of teachers entering vocational education from teacher education certification (TEC) programs and alternative or vocational (non-teacher education certification, NTEC) routes. Some of the differences are attributable to the pedagogical training that TEC teachers have gained from their teacher education programs. Other differences are attributable to the age and maturity gained by the typical NTEC teacher who has spent a longer time in the work world. It appears that the differences may be more qualitative than quantitative. To illustrate what we mean by that, both groups of teachers encounter a lack of adequate skill/knowledge during the early months of teaching. To meet those problems, they both need ongoing inservice programs, but the topics needed seem to be quite different, at least in the beginning.

Haberman (1985) and Sedlak (1987) were right when they concluded that professional preparation of teachers indeed provides very real and very substantive advantages to the TEC teachers. Those who advocate the elimination of teacher education

as a prerequisite to classroom entry have failed to examine all aspects of the research--this research included.

On the other hand, the value of the maturity and work-world experience brought to the vocational classroom by older persons entering teaching from alternative or vocational routes (NTEC) cannot be overstated. This advantage cannot be inferred for teachers entering the classroom directly from college without teacher preparation or experience. This study did not examine that particular alternative certification route because it is simply not a common occurrence in vocational education.

The ideal solution would be to move toward a more mature beginning vocational teacher with more work-world experience. Perhaps, recruitment efforts in vocational teacher education should center more on persons who are finding that their initial career choices are not satisfying rather than the traditional model of recruiting high school seniors to come directly into teacher education programs. This research may also lend support to the concept of post-graduate teacher preparation along the lines of the professional-school model as proposed by the Holmes Group (1986), if only to assure that the entering teacher is beyond the exploration-trial stage of vocational maturity. Perhaps even a mandatory year-long internship in the occupational area of interest either between the junior and senior year or after completion of the degree program and before entering teaching would provide that maturity.

But, in the final analysis and regardless of the age at which the novice enters teaching, the need for a structured induction assistance program is indicated. For the younger teacher fresh out of college, it may initially emphasize time management and morale support along with technical skill development. For the older teacher entering the classroom directly from an occupational setting, it may initially emphasize curriculum and instructional strategies. In both cases, the induction assistance program must be flexible

and it must take into account the unique needs of the teacher in terms of (1) specific discipline, (2) vocational development level, and (3) background in teacher preparation.

The ultimate goals of secondary level vocational education in the United States cannot be attained without an effective teaching force. An effective teaching force presupposes the continuing development of existing teachers. Just as importantly, it means the professional development of beginning vocational teachers. Until we put in place an improved mechanism for the induction of beginning vocational teachers and their continuing professional development, the vision of an empowered professional teaching force will remain an illusion. Clearly an improved, structured induction program alone will not make that vision a reality, but the vision cannot be realized without it.

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